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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/015,569      | 12/17/2001  | Hsing-Tung Wang      | 320528201US         | 6245             |

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| EXAMINER |
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SAFAIPOUR, HOUSHANG

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| ART UNIT | PAPER NUMBER |
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2625

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04/18/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                       |                                    |  |
|------------------------------|---------------------------------------|------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/015,569  | <b>Applicant(s)</b><br>WANG ET AL. |  |
|                              | <b>Examiner</b><br>Houshang Safaipoor | <b>Art Unit</b><br>2625            |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-8,10-12 and 15-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8,10-12 and 15-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Examiner acknowledges the telephone conference with applicant's attorney during of which, the proposed amendment to the claims was discussed.

The only argument presented by the applicant is that the combination of the prior arts, used in the previous office action can not support rejection of the amended claims. This argument is moot in view of the new grounds of rejection necessitated by the amendment.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-7, 11, 12, 15-25, 27, 28 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai (US 5,798, 849) and further in view of Chiang et al. (US 5,535,021).

For claim 1, which is representative of claim 15, 20 and 31, Tsai discloses an apparatus comprising:

a scanner upper portion having an upper surface (figs. 2 & 4);

a light emitting element 3 disposed on said scanner upper surface (fig. 2);

Although Tsai uses a reflector for reflecting the light rays, it does not explicitly disclose that such reflector has an aperture. Chiang discloses a light diffuser to be used in image scanners, as shown in fig. 1. The diffuser consists of light source 28 and the reflector 32 (above light source 28, fig. 1) with apertures 37 formed thereon (col. 4, lines 49-61). Chiang further discloses that this diffuser may be positioned in a scanner housing or scanner body in the same manner as conventional light source (col. 5, lines 51-57). Therefore, it would have been obvious to a person of ordinary skill in the art to install Chiang's light diffuser into the scanner disclosed by Tsai (fig. 2) for uniform distribution of light intensity. Tsai and Chiang are combinable because they are from the same field of endeavor. Tsai further discloses:

a spreading plate (medium 4) positioned between the light emitting element (3) and the first surface (8), wherein the spreading plate includes a plurality of perforations (slots 5).

Regarding claim 2, Tsai discloses wherein said light-emitting element comprises a lamp (3; Fig 2).

For claim 4-5, which is representative of claims 18 and 22-23, Chiang teaches wherein said reflective plate substantially comprises an arc (fig. 1, col. 5 line17).

For claim 6, Chiang discloses that the aperture comprises a central portion and first and second end portions extending from the central portion, wherein the central portion is wider than the first and second end portion (fig. 1, it is clear from the drawing that the mid portion of aperture 37 is wider than the two ends).

Considering claim 7, Chiang teaches wherein said aperture includes generally elongated shape (fig 1).

For claim 11, Chiang teaches a protective plate (24) disposed on said scanner upper surface for protecting said apparatus (fig. 1).

Regarding claim 12, the use of LED as a light source in the scanning art is well known and routinely implemented in the art.

Regarding claim 16, Tsai discloses that the reflective plate is attached to the upper portion of the scanner (figs. 3 and 4).

Considering claim 17, Chiang teaches wherein said aperture is adapted to not reflect the light produced by a light source of said scanner (fig. 1, col. 5 lines 13-22).

For claims 19 and 24, Chiang discloses at least two apertures, spaced apart, formed on the plate (fig. 1, apertures 37).

Regarding claim 21, Tsai discloses that the spreading plate (medium 4) is configured to distribute at least a portion of the produced light (fig. 2, col. 3 lines 38-56)

Regarding claim 25, Chiang discloses wherein at least a portion of the one or more apertures comprise a first end, a center portion and a second end, wherein the center portion of the aperture is wider than one of the first and second end (fig. 1, please refer to arguments under claim 6).

Regarding claim 27, please refer to the rejection under claim 1. It should be added that the apertures 37 are considered as non-reflective portion of the reflective plate.

Regarding claim 28, the apertures 37 are considered as non-reflective portion of the reflective plate (fig. 1 of Chiang).

Claims 8, 10, 26, 29, 30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai (US 5,798, 849) and in view of Chiang et al. (US 5,535,021) and further in view of Umemoto (US 6,827,457).

Regarding Claims 8, 10, 26, 29, 30 and 32, combination of Tsai and Chiang discloses a spreading plate with two perforations (slots). The combination does not explicitly disclose two groups of perforations. Umemoto discloses a light pipe, so that the light incident into the pipe may exit the pipe uniformly. For this purpose, he teaches arranging the grooves more densely on the side than those arranged on the center portion of plate 1 (figs. 1 and 3, col. 5 lines 50 to col. 6 line 12). Therefor it would have been obvious to a person of ordinary skill in the art to use such a concept as disclosed by Umemoto in the light source device of Tsai in order to be able to have uniform (balanced) lighting.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Houshang Safaipoor whose telephone number is (571)272-7412. The examiner can normally be reached on Mon.-Fri. from 6:00am to 2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571)272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Houshang Safaipoor/  
Primary Examiner, Art Unit 2625  
April 16, 2008